

Title (en)
An optical device and its production method

Title (de)
Optische Anordnung und ihrer Herstellungsverfahren

Title (fr)
Dispositif optique et sa méthode de fabrication

Publication
EP 0905533 A3 20000412 (EN)

Application
EP 98307982 A 19980930

Priority
JP 26631197 A 19970930

Abstract (en)
[origin: EP0905533A2] On one principal plane of a silicon substrate 1, a silicon oxide film 2 having an opening 2a is formed, and a silicon nitride film 3 having an opening 3b overlapping the opening 2a and a recessed marker 3b is stacked on the silicon oxide film 2. Next, the substrate 1 is etched through the openings 2a, 3a to provide an alignment groove 1a for an optical waveguide, and an electrode pattern 5 is formed. Light of which wavelength transmits through the substrate 1 and the silicon oxide film 2 is radiated from the other principal plane of the substrate 1, and the optical element is assembled with the marker 3b serving as the reference while the marker 3b and the optical element are monitored. <IMAGE> <IMAGE> <IMAGE> <IMAGE> <IMAGE>

IPC 1-7
G02B 6/30; **G02B 6/42**

IPC 8 full level
G02B 6/42 (2006.01); **H01L 33/00** (2006.01); **H01L 33/48** (2010.01); **H01S 5/00** (2006.01)

CPC (source: EP US)
G02B 6/4224 (2013.01 - EP US); **G02B 6/4243** (2013.01 - EP US); **G02B 6/4245** (2013.01 - EP US)

Citation (search report)

- [XA] US 5499732 A 19960319 - NISHIMOTO HIROSHI [JP]
- [A] EP 0636911 A1 19950201 - NEC CORP [JP]
- [A] US 5644668 A 19970701 - CHAMBERS FRANK A [US], et al
- [A] OKANO H ET AL: "PASSIVE ALIGNED HYBRID INTEGRATED WDM TRANSCEIVER MODULE USING PLANAR LIGHTWAVE CIRCUIT PLATFORM", IEICE TRANSACTIONS ON ELECTRONICS,JP,INSTITUTE OF ELECTRONICS INFORMATION AND COMM. ENG. TOKYO, vol. E80-C, no. 1, pages 112-116, XP000740612, ISSN: 0916-8524

Cited by
EP1211532A3; US7720335B2; WO2022063410A1; WO2008040125A1

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